APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/070,444	06/20/2002	Michael Baldischweiler	BALD3006/JEK	7565

23364 7590 09/22/2004	EXAMINER	
BACON & THOMAS, PLLC	BONZO, BRYCE P	
625 SLATERS LANE		
FOURTH FLOOR	ART UNIT	PAPER NUMBER
ALEXANDRIA, VA 22314	2114	

DATE MAILED: 09/22/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	10/070,444	BALDISCHWEILER, MICHAEL
	Examiner	Art Unit
	Bryce P Bonzo	2114

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>20 June 2002</u>.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-5</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-5</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>20 June 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

NON-FINAL OFFICIAL ACTION

Status of the Claims

Claims 4 is rejected under 35 USC §112, second paragraph.

Claims 1, 2, 4 and 5 are rejected under 35 USC §102.

Claim 3 is rejected under 35 USC §103.

Rejection under 35 USC §112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 4 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 recites the limitation "the return addresses" in lines 1-4. There is insufficient antecedent basis for this limitation in the claim. In normal programming, that is correct programming, there is only ever a single return address for a calling function. Further, the claim goes on to discuss limitations relating to a single address, without specifying which of the addresses is being described. Additionally, the first recitation of return addresses uses "the" prior to being introduced with "a".

Rejections under 35 USC §102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in
public use or on sale in this country, more than one year prior to the date of application for patent in
the United States.

Claims 1 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by

Defensive Programming in Rapid Development of a Parallel Scientific Program by

Cheng.

As per claim 1, Cheng discloses:

the calling program forms a first check sum for the parameters to be passed

(page 668, ¶ 1, "It calculates the check sum ... tracing reduce debugging effort.")

said first check sum is stored in a specially provided memory (Page 668, ¶1,

logs their values into a file"),

the called program forms, before its execution, a second check sum for the

received parameters and checks it for equality with the first check sum (page 668, ¶1,

"the checksum are computed again and in (6.2) their invariance is asserted."), and

in case of inequality of the first and second check sums the program is

terminated or an error message outputted (Page 667, ¶2, "For catastrophic errors, the

program writes out the state of important variables before exiting. For noncatastrophic

errors, the program gives warnings, prints out important variables, and continues

execution.")

As per claim 4, Cheng discloses:

characterized in that the return addresses of the calling function are entered in a table

(the Examiner interprets the table as being a stack, a stack is present in all modern

computers and is used to hold temporary data as it is passed between routines) and the

called program checks the return address reported by the calling program by check by

checking the presence of said return address on the basis of the table (it is an inherent

feature of a computer to store the return address in the stack and then confirm it is there

by using it to end the called routine.) Applicant is advised that no features of the return

address storage or checking have been tied to the same checking of checksums as

present in claim 1.

Claims 2 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by

Akaishi (United States Patent No. 5,761,414).

As per claim 2, Akaishi discloses:

A method for protecting the program run at the call of subprograms, the called

program performing, before or during the program execution, a check of data passed

directly from the calling program, characterized in that

upon call of a subprogram a timer which counts the number of clock cycles

required for executing the program (column 3, lines 16-52) and

terminates the program if the preset number of clocks cycles was exceeded

before termination of the subprogram (column 3, lines 16-52).

As per claim 5, Akaishi discloses:

characterized in that the timer value is read at certain points (column 3, lines 32-

60) and compared with a likewise preset intermediate value (column 3, lines 61 through

column 4, lines 6) and program is terminated if the preset intermediate value was

exceeded (column 4, lines 7-43).

Rejection under 35 USC §103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over *Defensive*

Programming in Rapid Development of a Parallel Scientific Program by Cheng.

As per claim 3, Cheng does not explicitly disclose:

the memory area for storing the check sum is a RAM or register area. Cheng

simply discloses the check sum is stored in a log file. Official Notice is given that it is

well known to place diagnostic data, particularly short term transient data in RAM. This

is often done as the time to access permanent storage is too great, the diagnostic data

is only valuable for a short period of time, or the system simply lacks permanent

storage. Thus it would have been obvious to one of ordinary skill in the art at the time of

invention to implement the system of Cheng with RAM memory for storing the check

sums to better adapt to the high speed software nature of routines calling each other,

thus creating a faster system.

Allowable Matter

While the claims are presented are not allowable and do not contain allowable

matter due breadth, the Examiner offers the following guidance to expedite prosecution:

Applicant is advised to review the specification, and based upon enablement

requirements incorporate claim 4 in its entirety into claim 1 and explicitly specify the

return address is the parameter for which a checksum is created.   Applicant is

reminded this guidance is non-binding, and the Examiner can not anticipate every

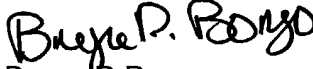variation which Applicant might claim the above subject matter.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Bryce P Bonzo whose telephone number is (703) 305-

4834 or upon moving to the new facilities in Alexandria (571) 272-3655. The examiner

can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Beausoliel can be reached on (703) 305-9713 or upon moving to the new facilities in Alexandria (571) 272-3645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Bryce P Bonzo
Examiner
Art Unit 2114